SPAWAR Systems Center Pacific
FY18 EOY Brief to NDIA

08 January 2019

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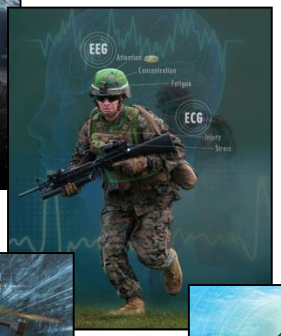
SPAWAR Systems Center, Pacific

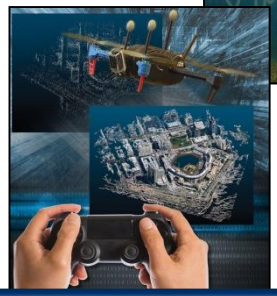
Executive Director (ED)

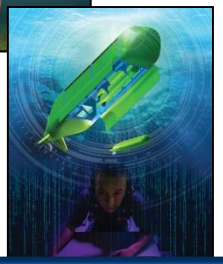
SPAWAR
Systems Center
PACIFIC

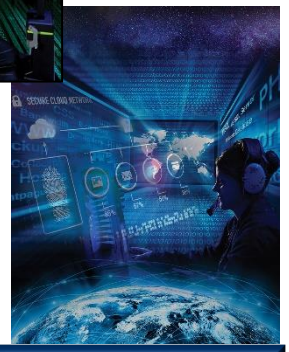
SSC Pacific Mission

From Concept to Capability via…



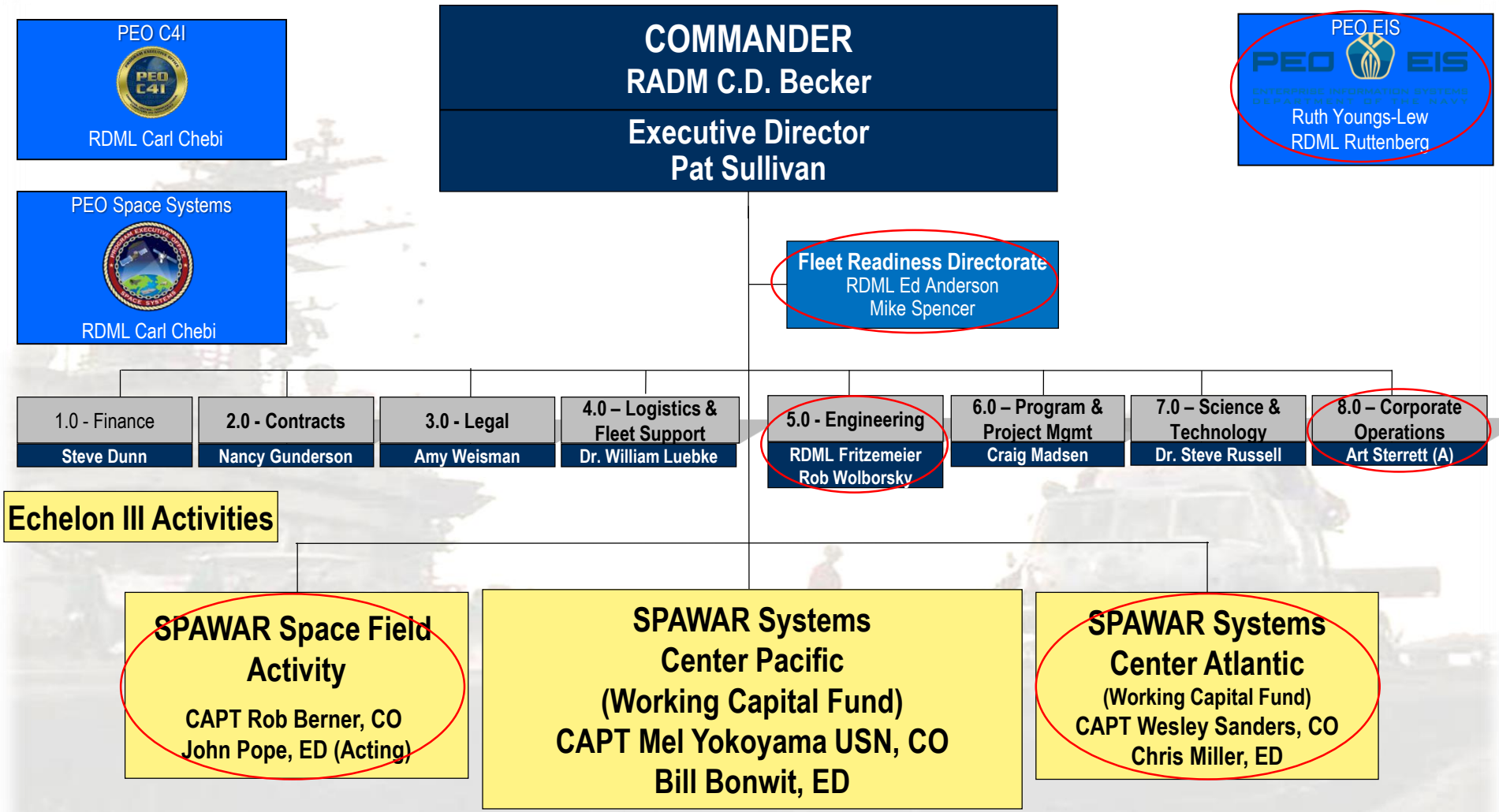




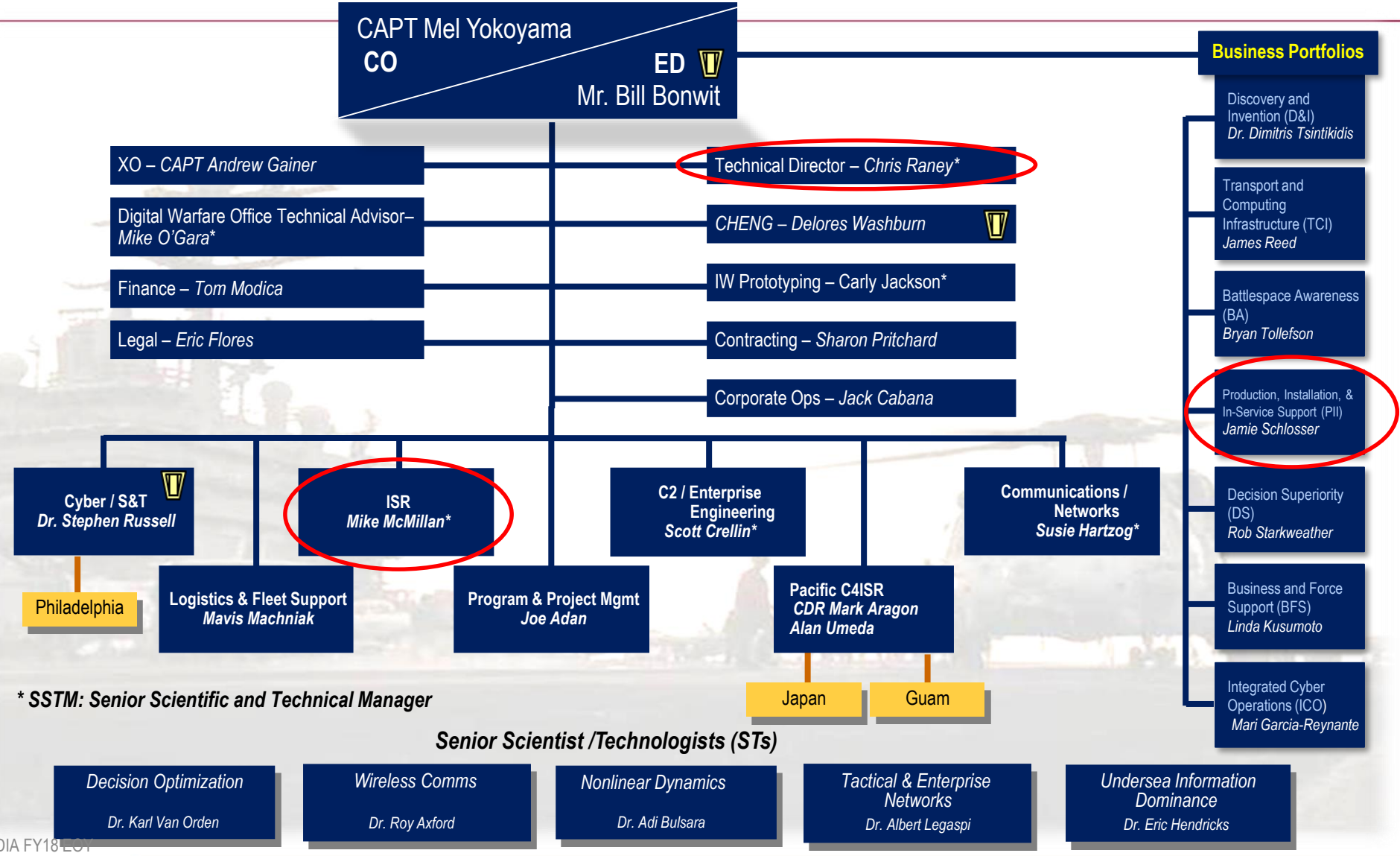


Research, development, engineering, and support of integrated C4ISR, cyber, and space systems across all warfighting domains and to rapidly prototype, conduct test and evaluation, and provide acquisition, installation, and in-service engineering support.

SPAWAR Organization



SSC Pacific: Organization



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FY18 Profile

Our People Are Our Greatest Strength

FY18 Profile

CIVILIANS*	**4792**
Scientists & Engineers	2353
Tech Specialists	921
S&E Technicians	330
Admin/Professionals	968
General Support	194
SES/ ST/ SSTM/ SL	26
MILITARY	**198**
Enlisted	134
Officers	64
TOTAL	**4,990**

*Civilians include NWCF and General Fund

FY18 = $2.8B
Total Obligation Authority

New Professional (NP) Program:
- ✓ ~2,765 applicants for 71 positions
- ✓ Average GPA 3.49

Highly credentialed, educated workforce
- ✓ 204 PhDs
- ✓ 1,385 Masters

3,648 SCI Clearances
- ✓ 1,955 Civil Servants & Military
- ✓ 1,693 Contractors

~ 32% of workforce: Active Duty, Reservists, Veterans
~ 400 Civilians Directly Supporting C4ISR with the Fleet Around the World

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Capabilities – Across the Full Life Cycle

Today
The Navy in Operation

Installation and Support

Production, Installation In-Service Support

Marine Mammals

Networks

EXMAN/Additive Manufacturing

CAMEO

Tomorrow
The Navy in Construction

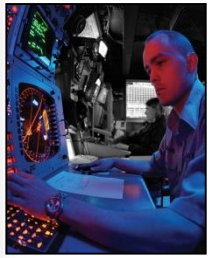
Engineering, Development, Test and Evaluation

C4ISR for Unmanned Vehicles

Collaborative Software Armory

Mixed Reality

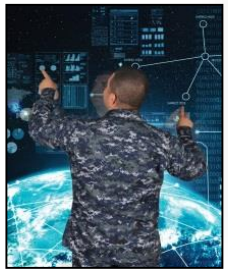
Integrated Fires



Integrated Cyber Operations

Space Command & Control

Compile to Combat in 24 Hours

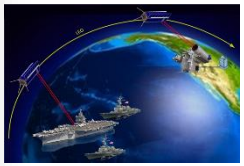


User Center Design

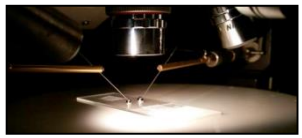
Future
The Navy in Planning

Science and Technology

OFFensive Swarm Enabled Tactics (OFFSET)

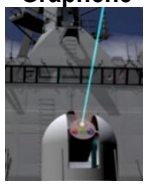


HALO-Net



Graphene

FDECO



Solid State Laser Atmospherics

Artificial Intelligence/ Machine Learning

Advanced Antenna Research

2018 Significant Awards

Greg Anderson, Meriah Arias-Thodes, Bart Chadwick, Lewis Hsu & Alex Phipps (TEAM), Nicholas Johnson & Richard Ordonez

ASN RD&A Top Scientist & Engineer of the Year Awards

Augmented Reality (AR) System for Topside Gun Crew Command and Control "GunnAR"

SECNAV Innovation Award

Alan Chu, Antwan Phan & Weden Teng

Society of Asian Scientists and Engineers Award

High Temperature Superconducting SQUID Array Radio Frequency Sensor

Federal Lab Consortium for Technology Transfer

Tena Bouma

2018 Women of Color STEM Technology All-Star Award

Team Project Title: Objective-Based Mission Planning for the MK 18 Unmanned Underwater Vehicle

SECNAV Innovation Award

Dr. Adi Bulsara

ONR Dr. Fred E. Saalfield Award for Lifetime Achievement in Science

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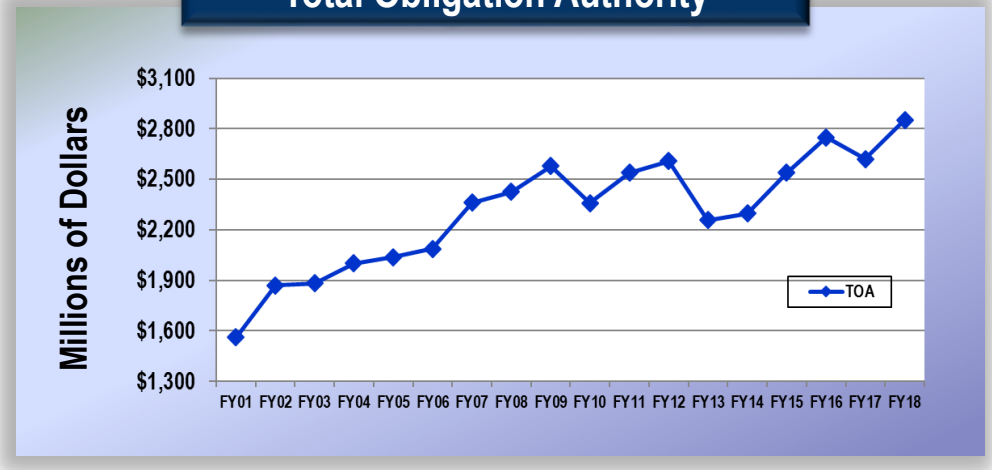
End of Year Snapshot

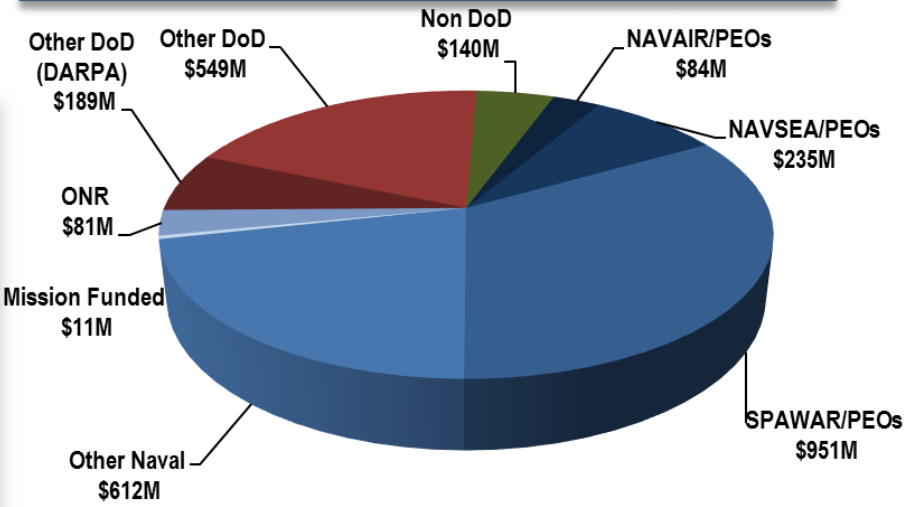
Customer Demand

FY18 = $2.8 B

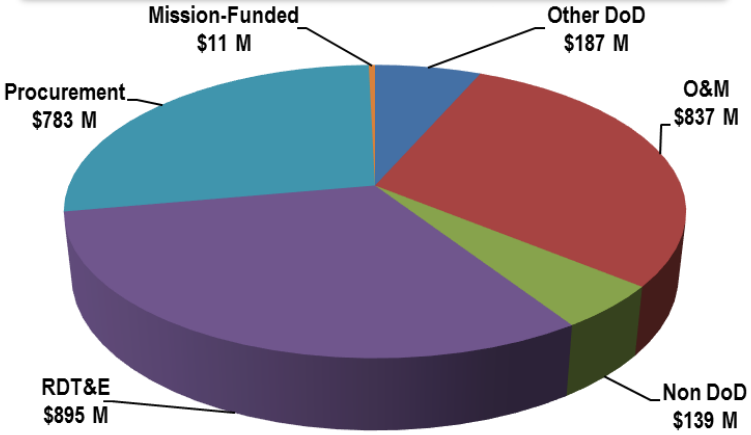
Total Obligation Authority



FY18 CUSTOMERS



FY18 FUNDS TYPE



- C4ISR Cyber and Space efforts
- Strong alignment with CNO Information Warfare priorities

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FY18 Contracts

TOTAL CONTRACTS

Competition: Target – 80%. Achieved 81.93% (Dollars)

Active contracts: 522 (D, C, and grants only)

Firms awarded contracts: 831 Different firms were awarded contracts & orders (including simplified acquisitions)

Total Amount Obligated $1.3B

Small Businesses

TYPE	Achieved	Target
Small Business Awards	36.55%	26.50%
HUBZone Small Businesses	1.06%	0.90%
Disadvantaged Small Business	11.78%	6.30%
8(a) Small Business	3.08%	N/A
Woman-Owned Small Business	6.66%	4.00%
Service-Disabled Vet-Owned Small Business	4.98%	2.10%

Intellectual Capital and Partnerships – Industry and Academia

CRADA - Cooperative Research and Development Agreement

▼ Establish and foster R&D partnerships with industry and academia, allowing parties to share R&D resources, personnel, equipment and costs, enabling development of new capability, technology, IP

Technology Transfer

SBIR/STTR
SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

▼ Promotes innovation and creativity with SSC Pacific technology
▼ Important pathway to move Navy innovation from lab to market and ultimately the warfighter

Partnering in Education and Community Outreach

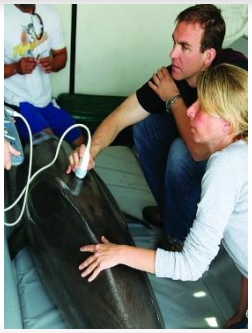
Community Impact:
- ▼ 12,444 Students
- ▼ 150 Schools
- ▼ 766 Teachers
- ▼ 72 Events

Volunteer Data:
- ▼ 552 Volunteers
- ▼ 15,585 Total STEM hours
- ▼ 8,766 Volunteer hours

PATENTS	FY18
Disclosures	105
Patents Filed	100
Patents Issued	52

PUBLICATIONS	FY18
Journal Articles	151
Conf. Papers	335
TRs/TDs	98

SSC Pacific T2 TECHNOLOGY TRANSFER



▼ *Eight Southern California companies* are using SSC Pacific technologies.

San Diego State University

Geographer - Self-photographed, CC BY 1.0

UC San Diego

Carnegie Mellon

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Moving Forward

- Strong demand for Cyber and C4ISR
- Increased Focus on Information Warfare
- Increasing demand for Systems of Systems engineering, rapid prototyping and experimentation
- Increase speed to capability and affordability
- Reduce complexity, streamline processes, and adopt best industry practices
- Artificial Intelligence; Autonomy/ Machine Learning; ISR; Networks